Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Caleb Weatherbee: Farmer’s Almanac

**Purpose**

The purpose of this lab is to explore the accuracy of the Farmer’s Almanac in predicting weather forecasts. [[1]](#endnote-2)

**Background**

 Caleb Weatherbee is the name given to all Farmer’s Almanac forecasters. “Caleb Weatherbee” prepares forecasts two years in advance using a “secret” formula based on sunspots, the planets and the moon. The Farmer’s Almanac claims 80% to 85% accuracy for the forecasts. These predictions are important for farmers as they develop planting and harvesting schedules. Many farmers plant crops in the spring between the months of March and May, but rain and cool weather often delay planting.

**Procedure**

 **Materials**

1. Farmer’s Almanac (class set or 1 per 2 students)
2. Computer access to [www.weather.com](http://www.weather.com)
3. Local planting/harvesting schedule (optional)

**![C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmf]()Sequence of Steps**

1. Select 3 or 4 past calendar days for the current year and write them in “observations”.
2. Divide into groups of 3-4
3. ![C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmf]()![C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmf]()Your teacher will assign each group a zone from the United States Zoned Weather Map in the Farmer’s Almanac. Record this zone in “observations”.
4. Select 2 states within your assigned zone and record.
5. ![C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmf]()![C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmf]()Research the recorded weather conditions for the dates selected above for each of the state capitals you selected. Make a note of any other important state information such as climate and crops.
6. Compare the recorded weather conditions with the predictions in the Farmer’s Almanac. Assign points to each comparison and total scores based on the following scale.

1 point: Prediction **MOSTLY** matches Recorded Weather Condition

0.5 point: Prediction **SOMEWHAT** matches Recorded Weather Condition

0 points: Prediction **DOES NOT** match Recorded Weather Condition

*Example:*

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Recorded Weather Conditions | Predicted Weather from Almanac | Rating |
| Jan 1 2007 | High: 39 degreesLow:30 degreesNo precipitation | Light Snow | 0 |
| Jan 6 2007 | High: 45 degreesLow: 34 degreesNo precipitation | Light snow continues then clearing | 0 |
| Jan 15, 2007 | High: 35 degreesLow: 18 degreesPrecipitation 0.06 in | Clearing, cold | 0.5 |

1. Report your findings to the class and record on a class chart to determine an overall accuracy percentage for the Farmer’s Almanac. To calculate the percentage, add up all the ratings and divide by the total number of recorded weather conditions.

**![C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmf]()**

**Observations**

1. Calendar days we selected in the past year:

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1. The zone we were assigned from the United States Zoned Weather Map:

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1. The 2 states we selected within our zone:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |
| --- |
| State: |
| Date | Recorded Weather Conditions & Notes | Predicted Weather from Almanac | Rating |
|  |  |  |  |
|  |  |  |  |
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|  |
| --- |
| State: |
| Date | Recorded Weather Conditions & Notes | Predicted Weather from Almanac | Rating |
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**Agriculture Application:**

Get a copy of your local planting and harvesting schedule, or find one online. Select 5 agriculture commodities and determine when they should be planted and when they should be harvested. Explain your findings.

1. Goehring, Jessalee (2008).Caleb Weatherbee, Lab. *Lodi High School Ag Dept.* [↑](#endnote-ref-2)